REMARKS

Claim Rejections

In the Advisory Action, the Examiner considered Applicant's amendment to add new matter and, therefore, refused to enter the amendments. The Examiner also maintained the following rejections.

Claims 1-2 and 4-6 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 1-2 and 4 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Luu et al. (6,691,213) in view of Bensimon et al. (5,533,125). Claims 5-6 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Luu et al. in view of Bensimon et al. further in view of Yamamoto et al. (6,532,513).

It is noted that the both Luu et al. and Bensimon et al. were initially cited by the Examiner in the outstanding Final Office Action. Thus, this Amendment represents Applicant's initial opportunity to respond to the rejections based upon these references.

Claim Amendments

By this Amendment, Applicant has amended claim 1 to remove the reference to the "platter" in response to the Examiner's new matter rejection under 35 U.S.C. §112, first paragraph. Applicant has also amended claim 1 to further limit the invention to partitioning a single disk drive into a user zone, a ROM zone, and a protect zone, in order to better protect what Applicant regards as the invention. It is believed that the amended claims specifically set forth each element of Applicant's invention in full compliance with 35 U.S.C. § 112, and define subject matter that is patentably distinguishable over the cited prior art, taken individually or in combination.

Applicant's claims, as amended, are directed toward a method for data security with lock in a hard disk and a solid state disk, comprising the following steps: partitioning a ***single*** disk drive into a plurality of disk zones; ***including a user zone, a ROM zone, and a protect zone***; providing a plurality of registers for indicating a record of a size of each of the plurality of disk zones; utilizing a mathematical operation for treating a user input data and a register data; and

assigning one of two ***different passwords*** to each of the ROM zone and the protect zone utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data, ***wherein the user zone is configured to allow a user to execute all ATA commands and the protect zone is configured to prevent a user from reading or writing.***

Luu et al. teach a computer system including a host computer with a native drive-access routine having a limited address range, and a disk drive with a protected area that is inaccessible to a user's preferred operating system. The protected area also lies beyond the limited address range. Tthe Examiner has cited Luu et al.'s user area 18 and preferred operating system 20, as shown in Fig. 2, as teaching two of Applicant's recited disk zones. Applicant does not acquiesce to the Examiner's characterization of Luu et al. In addition, Applicant does not believe that elements 18 and 20 teach partitioning a hard drive into Applicant's three recited zones, i.e., a user zone, a ROM zone, and a protect zone.

As admitted by the Examiner on p. 4 of the outstanding Office Action, Luu et al. fails to teach assigning different passwords to the ROM zone and the protected zone. The Examiner maintains that Bensimon et al. provides this deficiency.

Bensimon et al. teaches a removable storage device 100 including a local processor unit 106 which prevents the microcomputer system 10 from reading from or writing to the storage device absent the entry of an appropriate password by a user of the host microcomputer. *See* Abstract and Fig. 3. Bensimon et al. teach in Col. 5, ll. 16-31 (cited by the Examiner as teaching a passworded user zone configured to allow a user to execute all ATA commands) that the device 100 can be a PCMCIA-ATA card having 'a new ATA and PCMCIA-ATA command called "Password"...the Password command takes three forms: (1) Password-Enable; (2) Password-Send: and (3) Password-Disable.'" It is important to note that this disclosure only teaches the use of an ATA command having 3 forms; it does not teach "a user zone is configured to allow a user to execute ***all*** ATA commands" as recited in Applicant's claim 1. *Emphasis added.* Applicant submits that the skilled artisan would appreciate that the term "all ATA commands," when read in view of the specification, means allowing a user to have unrestricted access to the user zone. The reference also fails to teach that these passwords are assigned to

separate zones on the hard drive, much less a ROM zone or a protect zone. Furthermore, column 6, lines 13-23 (cited by the Examiner as teaching a protect zone configured to prevent a user from reading or writing) only teaches that a read/write password can cause the "device 100 to be rendered useless to those without knowledge of the password." Col. 6, ll. 18-19. It does not teach separate password protected zones on the hard drive itself.

In response to the Examiner's arguments in the Advisory Action, Applicant submits that the crux of the disagreement between the Examiner and Applicant regarding Bensimon et al. is based on the *function* of Bensimon et al.'s password. Namely, the password of Bensimon et al. is used to limit a user's manipulation of the entire disk; the reference does not teach that the password is assigned to individual zones which are defined on the hard drive. Applicant submits that, in the same way a read-only switch of a floppy limits a user's use of the floppy (but fails to thereby define zones on the floppy), Bensimon et al.'s user restrictions similarly merely limits whether a user can read only, read/write, or lock the entire disk. It does not assign these password to individual zones. As a result, even if the reference were combined with Luu et al., the Examiner has not provided a teaching or suggestion to assign different passwords to two of Applicant's three zones, i.e., the ROM zone and the protect zone.

The secondary reference to Yamamoto et al. is cited as teaching a plurality of registers for indicating a record of a size of each of the plurality of disk zones. The cited text from Yamamoto et al., col. 12, l. 54- col. 13, l. 15, does not teach anything about partitioning a disk drive into a user zone in combination with a protect zone and/or a ROM zone.

Yamamoto et al. do not teach: a method for data security with lock in a hard disk and a solid state disk, comprising the following steps: partitioning a single disk drive into a plurality of disk zones; including a user zone, a ROM zone, and a protect zone; providing a plurality of registers for indicating a record of a size of each of the plurality of disk zones; utilizing a mathematical operation for treating a user input data and a register data; and assigning one of two different passwords to each of the ROM zone and the protect zone utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data, wherein the

user zone is configured to allow a user to execute all ATA commands and the protect zone is configured to prevent a user from reading or writing.

It follows that even if the teachings of Luu et al., Bensimon et al., and Yamamoto et al. were combined, as suggested by the Examiner, the resultant combination does not suggest: a method for data security with lock in a hard disk and a solid state disk, comprising the following steps: partitioning a single disk drive into a plurality of disk zones; including a user zone, a ROM zone, and a protect zone; providing a plurality of registers for indicating a record of a size of each of the plurality of disk zones; utilizing a mathematical operation for treating a user input data and a register data; and assigning one of two different passwords to each of the ROM zone and the protect zone utilizing a password operation mode utilizing the mathematical operation with the user input data and the register data, wherein the user zone is configured to allow a user to execute all ATA commands and the protect zone is configured to prevent a user from reading or writing.

Furthermore, Applicant submits that, even if the Examiner is able to provide teachings providing each and every feature recited in Applicant's claims, there is not adequate suggestion in either Luu et al., Bensimon et al., or Yamamoto et al. that their respective teachings may be combined as suggested by the Examiner. Case law is clear that, absent any such teaching or suggestion in the prior art, such a combination cannot be made under 35 U.S.C. § 103.

In considering the above, the Examiner is respectfully reminded that in In re Geiger, 815 F.2d 686, 688, 2 USPQ2d, 1276, 1278 (Fed.Cir. 1987) the court stated, at page 1278: "**Obvious to try**" is not a legitimate test of patentability. *Emphasis added.* Furthermore, in In re Wesslau, 147 U.S.P.Q. 391, 393 (CCPA 1965), the court ruled that "[t]he ever present question in cases within the ambit of 35 U.S.C. 103 is whether the subject matter as a whole would have been obvious to one of ordinary skill in the art following the ***teachings*** of the prior art at the time the invention was made. It is impermissible with the framework of section 103 to **pick and choose** from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." (emphasis in original)

In view of the above, Applicant respectfully submits that, even if the Examiner is able to present references teaching each and every element of Applicant's claims (e.g., a password which enables all *ATA commands* or assigning 2 different passwords to the ROM and protect zone of Applicant's 3 defined zones), the Examiner has still failed to provide a specific motivation from the art sufficient to motivate the skilled artisan to selectively cull certain features from three different references, while ignoring others features inconsistent with Applicant's invention, to arrive at Applicant's recited method. To do so requires more than noting on p. 4 of the outstanding Office Action that the cited references are "analogous in storage protection" or that a password would further protect the data in Luu et al. Furthermore, Applicant notes that the Examiner has not shown why the skilled artisan would be motivated to apply Bensimon et al.'s passwords (which fails to teach anything about separate zones on a hard drive), to Luu et al.'s protected zone, in general, much less providing a specific motivation that would lead the skilled artisan to arrive at Applicant's recited method. As noted above, "obvious to try" is not the applicable standard.

Neither Luu et al., Bensimon et al., nor Yamamoto et al. disclose, or suggest a modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's amended claims.

Summary

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

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